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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/668,174 | 09/25/2000 | Kenji Imura | 44319-054 | 1744 |

7590 01/18/2005

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| EXAMINER |
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WU, JINGGE

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| ART UNIT | PAPER NUMBER |
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2623

DATE MAILED: 01/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/668,174 | IMURA, KENJI | |
| | Examiner | Art Unit | |
| | Jingge Wu | 2623 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/23/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-16,18-27 and 29-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,7,10-14,18,21-25,29 and 32-36 is/are rejected.
- 7) ☐ Claim(s) 4,5,8,9,15,16,19,20,26,27,30 and 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicants' response to the last Office Action, filed August 23, 2004 has been entered and made of record.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 7, 12, 18, 23, 29, 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11-258712A to Yasuo (a reference of record) in view of JP 10-11500A to Nishimura.

As to claim 1, Yasuo discloses a test chart color measuring system comprising:
a color image taking apparatus (12, flat bed scanner) takes up a color image of a test chart (530) with a matrix of color samples (fig. 6, 532-538) to output color image signals (fig. 8, 0097-0098); and

an image processor (19) which extracts image signals corresponding to color samples based on the density of the taken test chart image, and calculates a color value of each color sample using the extracted image signal (fig. 8, 0096-0098, note that here, Yasuo use the digital color picture data from the test chart to determine the

output condition or conversion for color channel, thus, calculating color values is inherent).

Yasuo did not mention telecentric optical system to take color image.

Nashimura, in an analogous environment, discloses a telecentric optical system to take color image (abstract)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the scheme of Nashimura in the system of Yasuo in order to form color image without chromatic aberration (Nashimura, 0004).

As to claims 12, Yasuo discloses a test chart color measuring system comprising:

a color image taking apparatus (12, flat bed scanner) takes up a color image of a test chart (530) in which specified color samples are respectively arrayed in sections divided in a matrix of color samples (fig. 6, 532-538 are section divided) to output color image signals (fig. 8, 0097-0098); and

an image processor (19) which extracts image signals corresponding to color samples based on the density of the taken test chart image and information on section division (fig. 6 532-543), and calculates a color value of each color sample using the extracted image signal (fig. 8, 0096-0098, note that here, Yasuo use the digital color picture data from the test chart to determine the output condition or conversion for color channel, thus, calculating color values is inherent).

Yasuo did not mention telecentric optical system to take color image.

Nashimura, in an analogous environment, discloses a telecentric optical system to take color image (abstract)

The argument of combining Yasuo and Nashimura is addressed with regard to claim 1.

As to claim 23, Yasuo discloses a test chart color measuring system comprising:
a color image taking apparatus (12, flat bed scanner) takes up a color image of a test chart (530) with a matrix of color samples (fig. 6, 532-538) and a marker (560) indicating a boundary of sections to provided to output color image signals of plurality of color components (fig. 8, 0097-0098); and

an image processor (19) which extracts image signals corresponding to color samples based on the markers (560, see 0096) in the taken test chart image, and calculates a color value of each color sample using the extracted image signal (fig. 8, 0096-0098, note that here, Yasuo use the digital color picture data from the test chart to determine the output condition or conversion for color channel, thus, calculating color values is inherent).

Yasuo did not mention telecentric optical system to take color image.

Nashimura, in an analogous environment, discloses a telecentric optical system to take color image (abstract)

The argument of combining Yasuo and Nashimura is addressed with regard to claim 1.

As to claim 34, Yasuo discloses a system for correcting a color output apparatus, comprising:

a test chart output controller (inherent in computer 19) to control the printer to output a test chart (530) for correction in which specified color samples are respectively arrayed in information on section division in matrix manner(fig. 6 and 8, 532-543, 0089-0090);

a color image taking apparatus (12, flat bed scanner) which simultaneously takes up a plurality of color images of test chart (scanning) to output image signals of a plurality of color components (fig. 8, 0095-0097);

an image processor (19) which extracts image signals corresponding to color samples based on the density of the taken test chart image and information on section division (fig. 6 532-543), and calculates a color value of each color sample using the extracted image signal (fig. 8, 0096-0098, note that here, Yasuo use the digital color picture data from the test chart to determine the output condition or conversion for color channel, thus, calculating color values is inherent).

a correction data calculator (19) which calculates correction data for the color output apparatus (printer 14) on respective color values of the color samples (0098).

Yasuo did not mention telecentric optical system to take color image.

Nashimura, in an analogous environment, discloses a telecentric optical system to take color image (abstract)

The argument of combining Yasuo and Nashimura is addressed with regard to claim 1.

As to claims 35 and 36, all limitations are addressed with in the claim 35 expect section division in 35 or marks in claim 36. However, those limitations are addressed with regard to claims 12 and 23 respectively.

As to claims 7, 18, and 29, Nashimura further discloses a telecentric optical system includes;

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a field lens arranged such that an optical axis of the field lens coincides with the normal to the opening, and focus lens arranged at the focal point of the field lens (fig. 3, 0002, note that optical axis is parallel to the normal of the color image and the opening).

4. Claims 2-3, 10-11, 13-14, 21-22, 24-25, 32-33 rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuo in view of US 5963334 to Yamaguchi et al. (a reference of record)

As to claim 2, Yasuo disclose the color image taking apparatus includes a color image pickup device (12) with has a plurality of spectral sensitivities different from each other, and pickup an image of the test chart (530) to output image signals (figs. 6 and 8. 0095-98) but does not disclose the detailed optical structure of the image taking apparatus.

Yamaguchi, in an analogous environment, discloses:

a main body (11) having a opening to place test object (fig. 6);

an illuminator body (213 and 223) illuminates the test object (fig. 6);

a optical system which introduces light beams having a special direction from the test object to the color pickup device (fig. 6, 331).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the scheme of Yamaguchi in the system of Yasuo in order to signify the construction and reduce the production cost (Yamaguchi, col. 2).

As to claim 3, Yamaguchi further discloses the illuminator illuminates the test chart in a direction of 45 degree to a normal to the opening (figs. 4, 6, and 9); and

the optical system introduces reflection light beams propagating along the normal to the opening from the test object (figs. 4, 6, 9, col. 9 –col. 10).

As to claims 10-11, Yasuo further discloses the color image apparatus includes a drive controller to cause pickup device to pickup images during a plurality of different periods, and calculates the color values using the image signals corresponding the exposure periods, and a display device to display an index indicates a partial area of a color image (figs. 6 and 8, 0091-0098).

As to claims 13-14, 21-22, 24-25, 32-33, the discussions are addressed with regard to claims 2-3, and 10-11.

Allowable Subject Matter

5. Claims 4-5, 8-9, 15-16, 19-20, 26-27, 30-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

6. Any inquiry concerning this communication or earlier communications should be directed to Jingge Wu whose telephone number is (703) 308-9588. He can normally be reached Monday through Thursday from 8:00 am to 5:30 pm. The examiner can be also reached on second alternate Fridays.

Any inquiry of a general nature or relating to the status of this application should be directed to TC customer service whose telephone number is (703) 306-0377.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amelia Au, can be reached at (703) 308-6604.

The Working Group Fax number is (703) 872-9314.

Jingge Wu

Primary Patent Examiner

